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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Research was performed to develop tank gunnery sustainment training materials for M60A3 armor crewmembers. This research product consists of 6 booklets for use by tank commanders in maintaining their knowledge and skill in issuing basic fire commands. The first booklet (RP 83-01A) provides an overview of fire command knowledges and contains training notes. The remaining five booklets provide practice in: classifying threats (RP 83-01B); selecting ammo/weapons (RP 83-01C); sequencing fire command elements (RP 83-01D); issuing fire commands for single engagements (RP 83-01E); and issuing fire commands for multiple and (continued)

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simultaneous engagements (RP 83-01F).

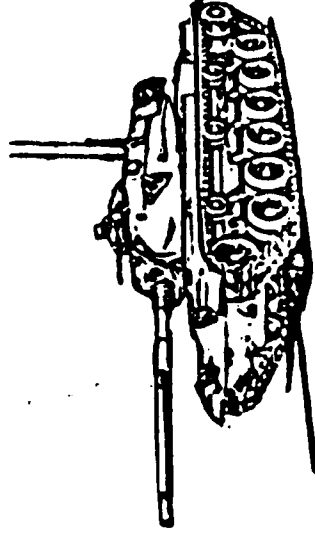
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FIRE COMMANDS FOR THE M60A3 TANK

BOOKLET 4

FIRE COMMAND ELEMENTS AND SEQUENCE



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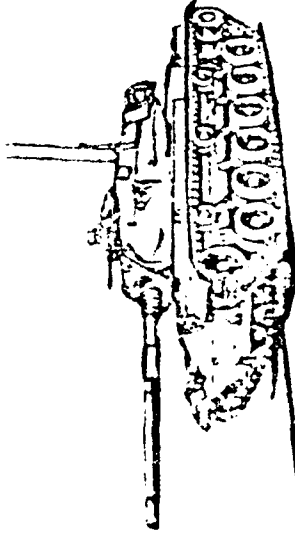
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RP 83-1-D

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FIRE COMMANDS FOR THE M60A3 TANK

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FIRE COMMAND ELEMENTS AND SEQUENCE



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RESEARCH PRODUCT
RP 83-1-D

BOOKLET NUMBER 4

FIRE COMMAND ELEMENTS AND SEQUENCE

USER'S GUIDE

This is booklet number 4 in a set of six booklets. The set deals with issuing fire commands on the M60A3 tank. When you have finished the complete set you will be able to:

ISSUE A CORRECT FIRE COMMAND FOR THE MAIN
GUN OR ANY MACHINEGUN IN EITHER SINGLE,
MULTIPLE OR SIMULTANEOUS TARGET ENGAGEMENTS.

BACKGROUND

In order to issue a fire command, you must announce all elements of the fire command in their proper sequence.

THIS BOOKLET

This booklet will give you practice in selecting the proper sequence of fire command elements.
The booklet contains battlefield scenarios. Each scenario includes:

- A picture of the battlefield.
- A short written description of the battle-field situation.
- A question for you to answer.

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HOW TO USE THIS BOOKLET

1. Look at the scenario picture.
2. Read the written description.
3. Read the question following the description.

SOME QUESTIONS ARE FOLLOWED BY A LIST OF POSSIBLE ANSWERS. FOR THESE QUESTIONS, YOU SHOULD SELECT THE CORRECT ANSWER.

SOME QUESTIONS DO NOT HAVE ANSWERS. FOR THESE QUESTIONS YOU MUST PROVIDE YOUR OWN ANSWER.

4. Check your answer with the Answer Key on the page following the scenario.
5. Refer to:
 - FM-17-12-3 if you have any further questions
6. Complete the rest of the scenarios.

BEFORE YOU USE THIS BOOKLET

Before you use this booklet, be sure you have completed booklets 1 through 3 of this set.

TANK COMMANDER TRAINING NOTES

Training notes are presented in booklet 1.

SCENARIO 1



THE SITUATION

- You are in a deliberate defense, turret down and undetected.
- A single PT-76 is identified at a range of 1200 meters.
- Your M60A3 is fully operational.
- Round loaded is SABOT.

What is your fire command?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
GUNNER	TANK	FIRE	FIRE
SABOT	SABOT	SABOT	TANK
TANK . . .	GUNNER . . .	GUNNER . . .	GUNNER . . .
FIRE	FIRE	TANK	SABOT

SCENARIO 1 ANSWER

Your correct answer is: A GUNNER
 SABOT
 TANK . . .
 FIRE

This fire command has all the elements in the correct sequence. The elements are:

ALERT
AMMUNITION/WEAPON
DESCRIPTION
EXECUTION

WRONG ANSWERS

B.

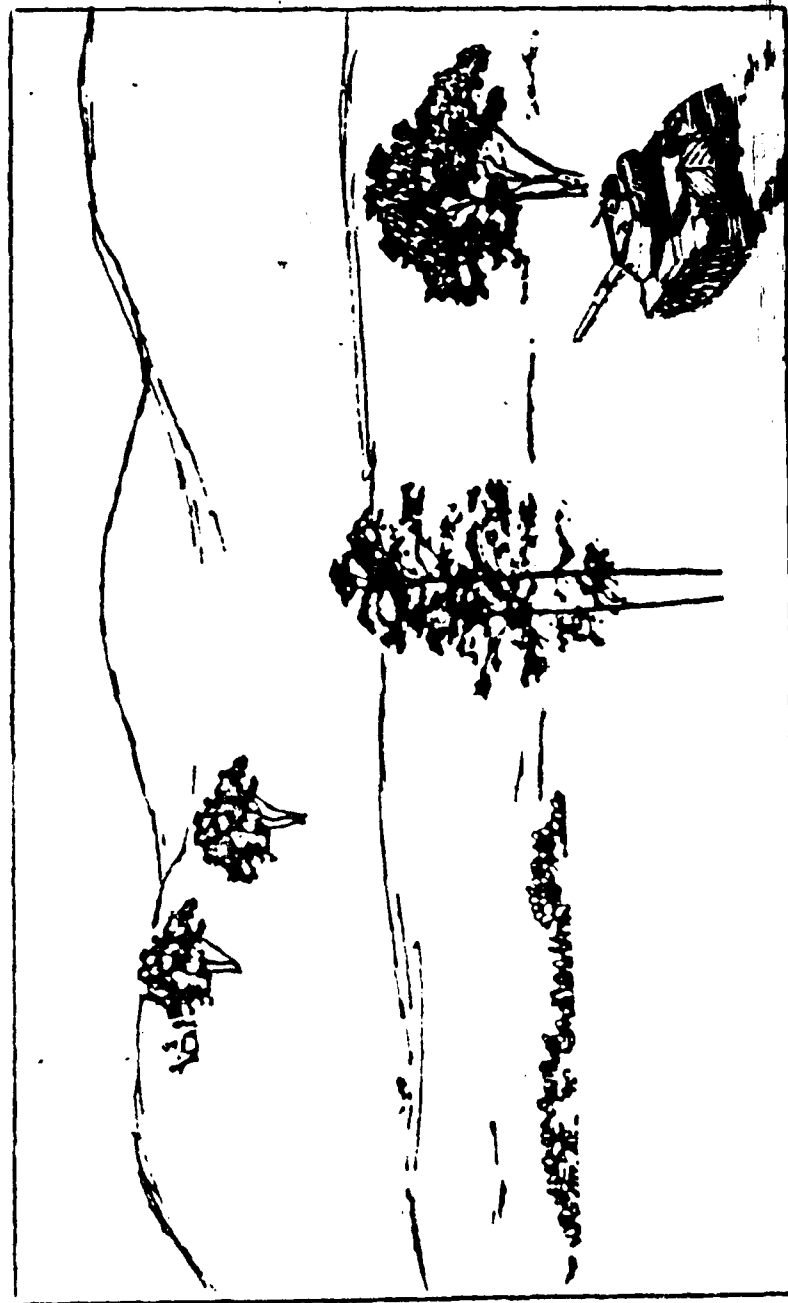
C.

D.

}

Elements are not in correct sequence.

SCENARIO 2



THE SITUATION

- You are stopped in a bounding overwatch position.
- Your M60A3 is fully operational.
- Round loaded is HEAT.
- You see a dismounted SAGGER crew at 2000 meters preparing to fire.

What is your fire command?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
MISSILE	GUNNER	FIRE	GUNNER
GUNNER	MISSILE	HEAT	HEAT
HEAT . . .	HEAT . . .	MISSILE . . .	MISSILE . . .
FIRE	FIRE	GUNNER	FIRE

SCENARIO 2 ANSWER

The correct answer is D:

GUNNER
HEAT
MISSILE . . .
FIRE

The elements of this command are in the right order.
The elements are:

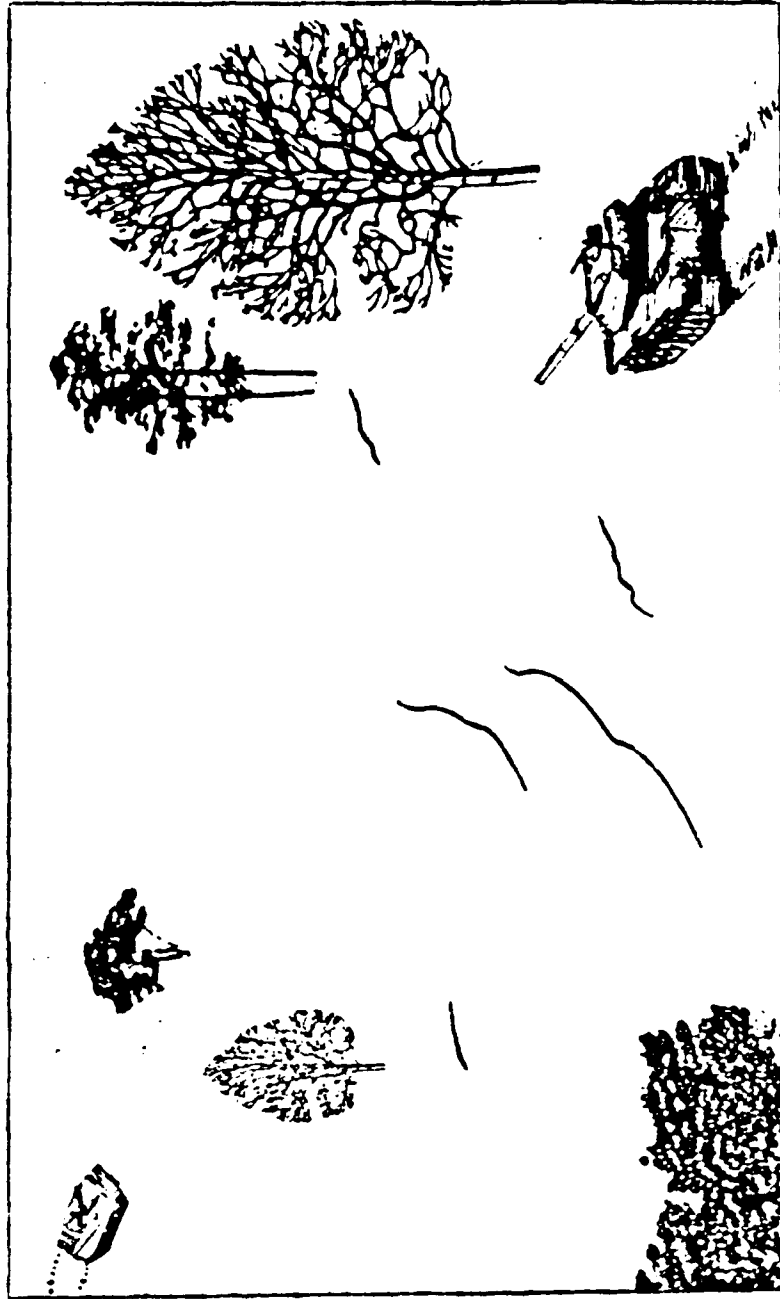
ALERT
AMMUNITION/WEAPON
DESCRIPTION
EXECUTION

WRONG ANSWERS

A. }
B. }
C. }

Incorrect sequence of elements.

SCENARIO 3



THE SITUATION

- M60A3 is moving in a deliberate attack, fully operational.
- Round loaded is SABOT.
- A BMP is identified moving to your left front at 2000 meters mounting sappers.
- It is not aiming in your direction.

What is your fire command?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
DRIVER STOP	GUNNER	DRIVER STOP	MOVING PC
GUNNER	SABOT	GUNNER	FIRE
PC	MOVING PC . . .	SABOT	SABOT . . .
SABOT . . .	FIRE	MOVING PC . . .	GUNNER
FIRE		FIRE	

SCENARIO 3 ANSWER

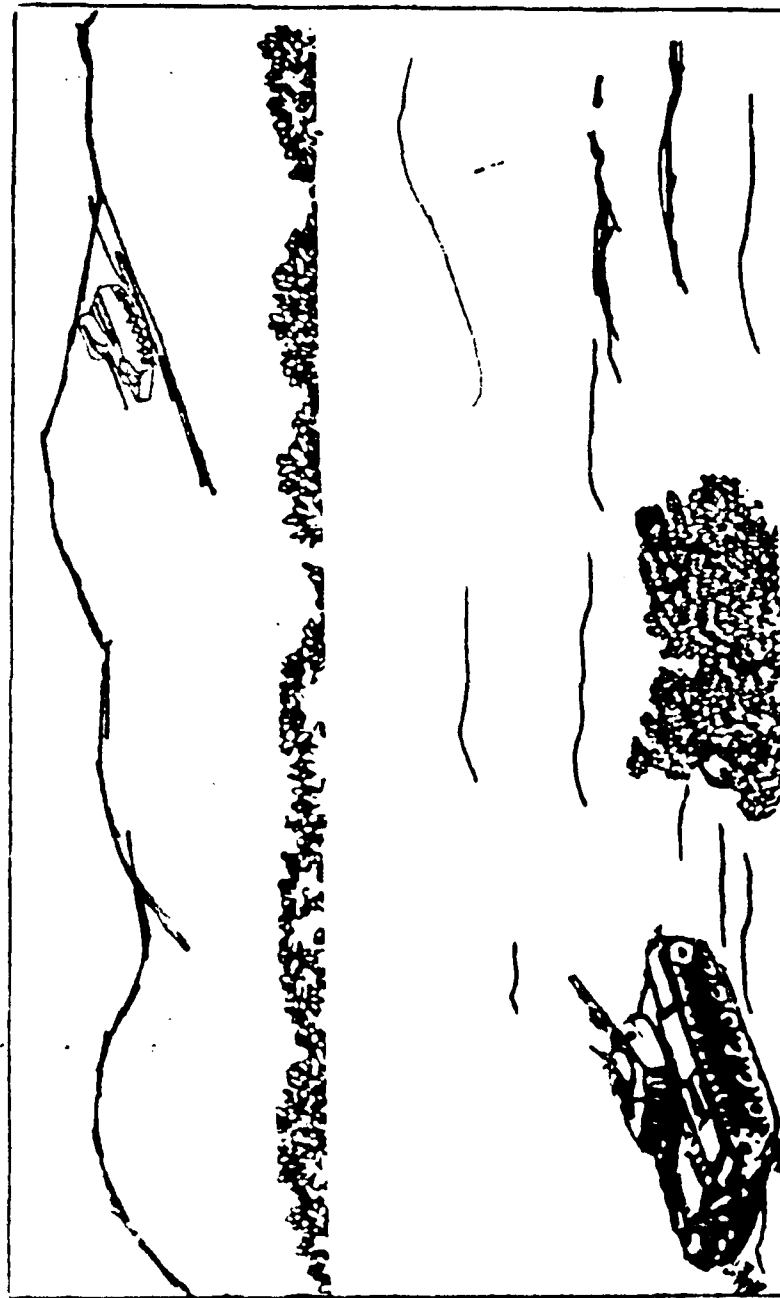
The correct answer is C:
DRIVER STOP
GUNNER
SABOT
MOVING PC . . .
FIRE

Whether or not an M60A3 tank crew should come to a halt to fire is the decision of the tank commander at that time. Given the present situation the tank crew would increase its probability of a first round hit if it came to a brief halt to fire. This is especially true since the tank is undetected by the PC.

WRONG ANSWERS

- A. Incorrect elements, incorrect sequence.
- B. Correct, but not preferred since the probability of a 1st round hit is less than firing from a stationary tank.
- D. Incorrect sequence.

SCENARIO 4



THE SITUATION

- You have advanced to the enemy's defensive area and stopped for a brief halt.
- M60A3 is fully operational.
- Round loaded is SABOT.
- A self-propelled howitzer is identified, at 2000 meters, direct front.

What is your fire command?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
GUNNER	GUNNER	GUNNER	TANK
SELF PROPELLED	TANK	SABOT	SABOT
HOWITZER	SABOT . . .	TANK . . .	GUNNER . . .
SABOT . . .	FIRE	FIRE	FIRE
FIRE			

SCENARIO 4 ANSWER

The correct answer is C:

GUNNER
SABOT
TANK . . .
FIRE

This fire command has the correct elements in the right sequence. Remember, artillery pieces such as a self-propelled howitzer are identified as TANK in the 'fire command.

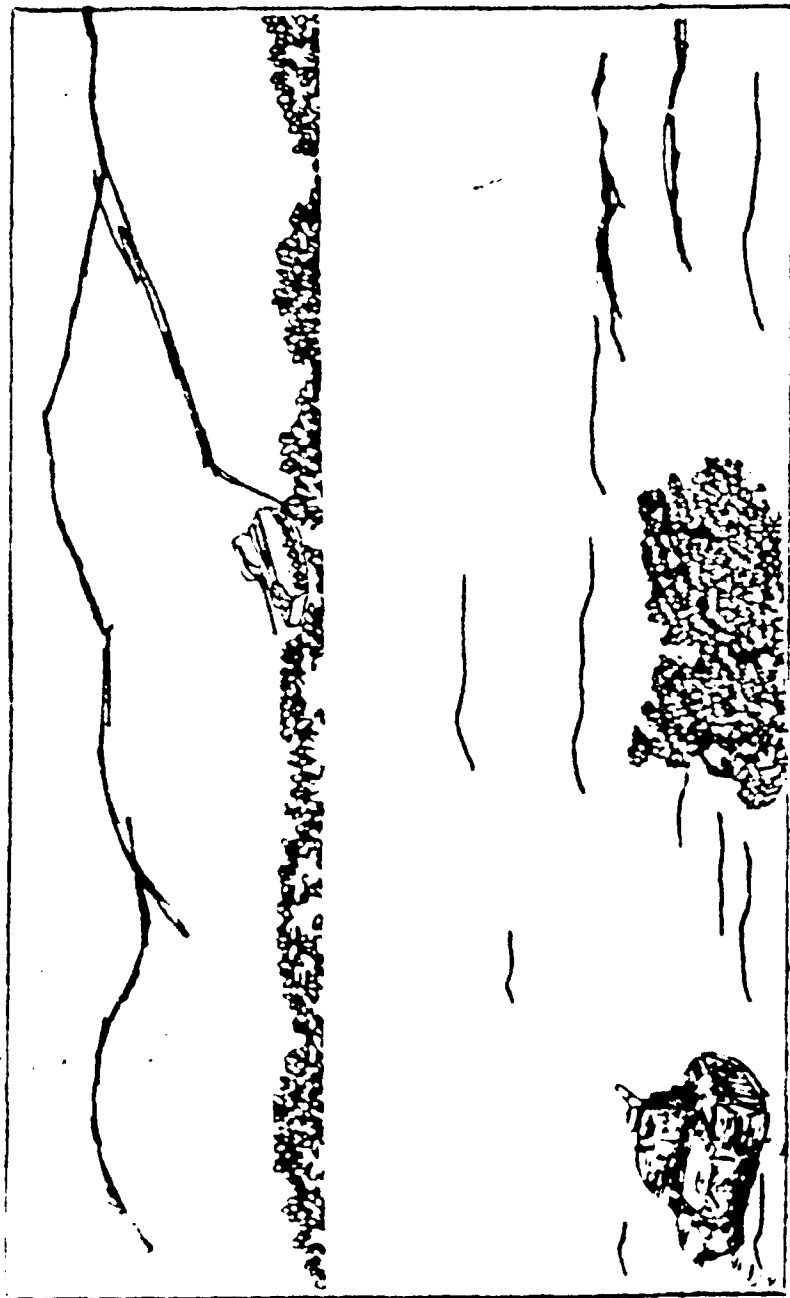
WRONG ANSWERS

A. Wrong target description, incorrect sequence of elements.

B. }
D. }

Incorrect sequence of elements.

SCENARIO 5



THE SITUATION

- You resume the attack and are advancing in the enemy's main defensive belt.
- Your laser rangefinder has failed.
- Round loaded is SABOT.
- A self-propelled howitzer suddenly appears to your right front at 1000 meters and stops.
- It has seen you and is preparing to fire.

What is your fire command?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
GUNNER	GUNNER	BATTLESIGHT	GUNNER
BATTLESIGHT	SABOT	GUNNER	BATTLESIGHT
SABOT	MOVING TANK . .	SABOT	MOVING TANK . . .
TANK . . .	FIRE	TANK . . .	FIRE
FIRE		FIRE	

SCENARIO 5 ANSWER

The correct answer is D:
GUNNER
BATTLESIGHT
MOVING TANK . . .
FIRE

This fire command is correct because it has all the right elements in the right order. The elements are:

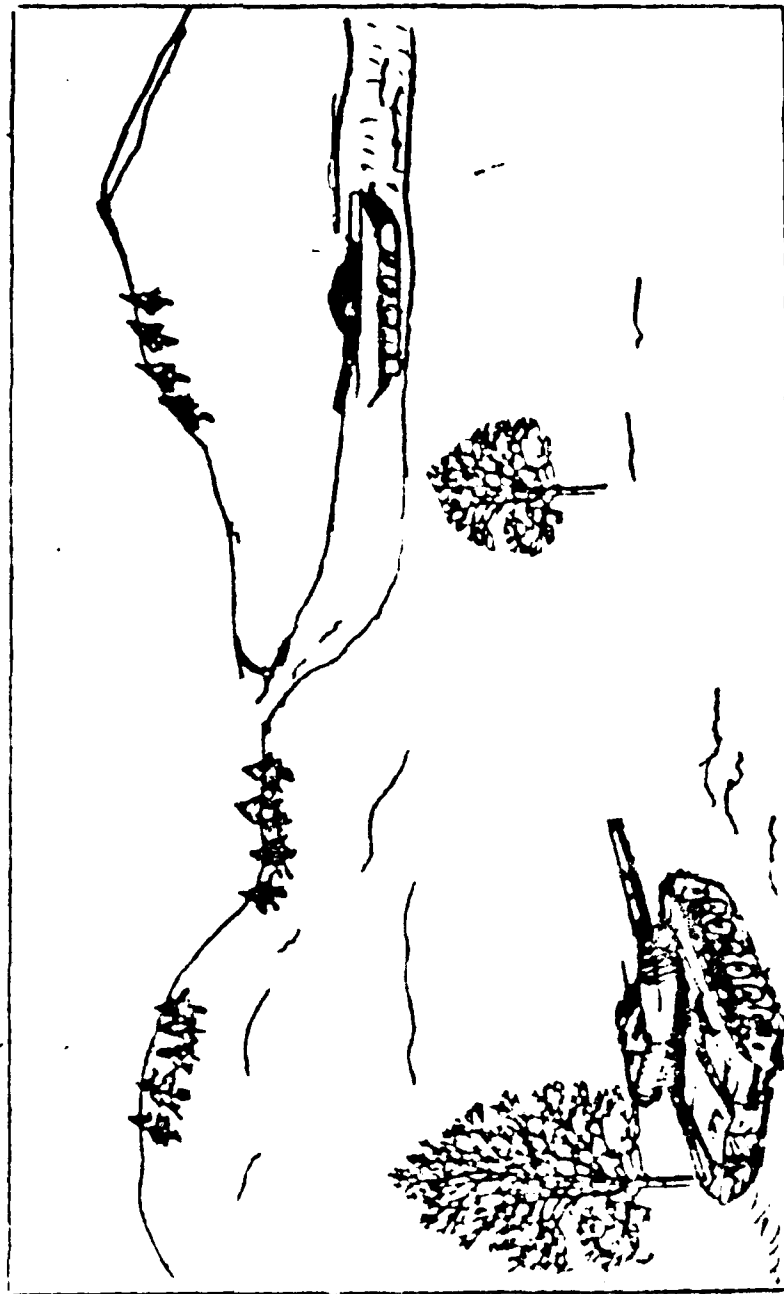
ALERT
AMMUNITION/WEAPON (in this case, BATTLESIGHT)
DESCRIPTION
EXECUTION

Remember, BATTLESIGHT can be employed in situations where you are suddenly presented with a most dangerous surprise target or when denied use of the LRF. Whether the tank should come to a brief halt to fire or fire on the move is the TC's decision. Given this situation, the tank crew should fire on the move to get off the 1st round as quickly as possible.

WRONG ANSWERS

- A. Incorrect element. Says BATTLESIGHT and SABOT.
- B. Incorrect element. Does not say BATTLESIGHT.
- C. Incorrect elements and sequence of elements.

SCENARIO 6



THE SITUATION

- You are stopped and providing overwatch for the lead tank(s).
- Laser rangefinder has failed.
- Round loaded is SABOT.
- You see a T-72 crossing your direct front at about 2000 meters.

What is your fire command?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
GUNNER	GUNNER	DRIVER STOP	GUNNER
SABOT	SABOT	GUNNER	BATTLESIGHT
MOVING TANK . . .	MOVING TANK . . .	SABOT	TANK . . .
FIRE	INDEX TWO	MOVING TANK . . .	FIRE
	THOUSAND . . .	FIRE	
	FIRE		

SCENARIO 6 ANSWER

Your correct answer is B:

GUNNER

SABOT

MOVING TANK

INDEX TWO THOUSAND . . .

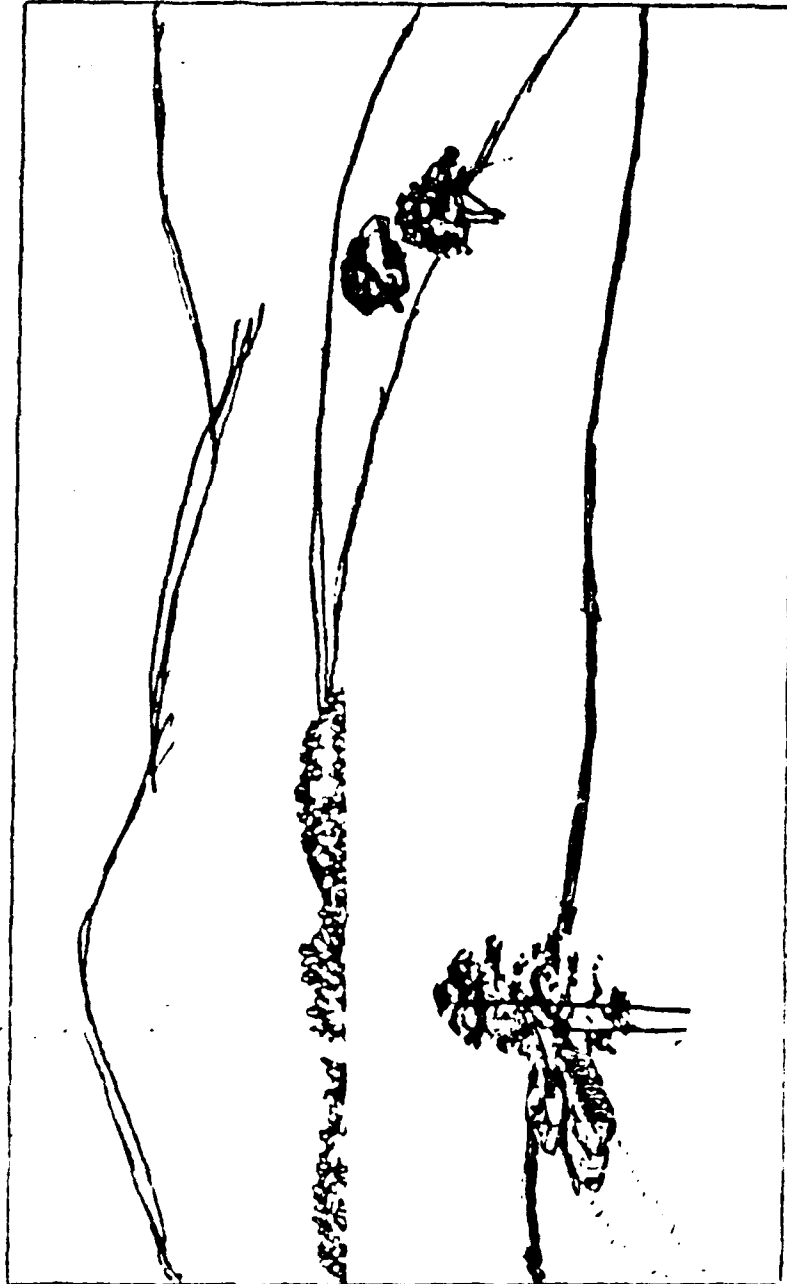
FIRE

Note. If the tactical situation dictated rapid target engagement, the TC should announce an estimated range and the gunner should fire from the M105D telescope.

WRONG ANSWERS

- A. That is the correct fire command for precision gunnery if the laser rangefinder was operational.
- B. Wrong elements. Fire command does not have a "DRIVER STOP" element.
- D. Wrong elements. Target is moving and beyond battlesight range.

SCENARIO 7



THE SITUATION

- You are at a halt, turret exposed and not well concealed.
- MCOA3 is fully operational.
- Round loaded is HEAT.
- You see a T-72 at 2000 meters.
- He has detected you.

What is your fire command?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
GUNNER	GUNNER	GUNNER	GUNNER
HEAT	SABOT	HEAT	BATTLESIGHT
TANK . . .	TANK . . .	TANK . . .	TANK . . .
FIRE	FIRE	FIRE	FIRE
		FIRE SABOT	

SCENARIO 7 ANSWER

The correct answers C:
GUNNER
HEAT
TANK . . .
FIRE
FIRE SABOT

Remember:

You are detected and DO NOT have enough time to unload the HEAT round and reload with SABOT.

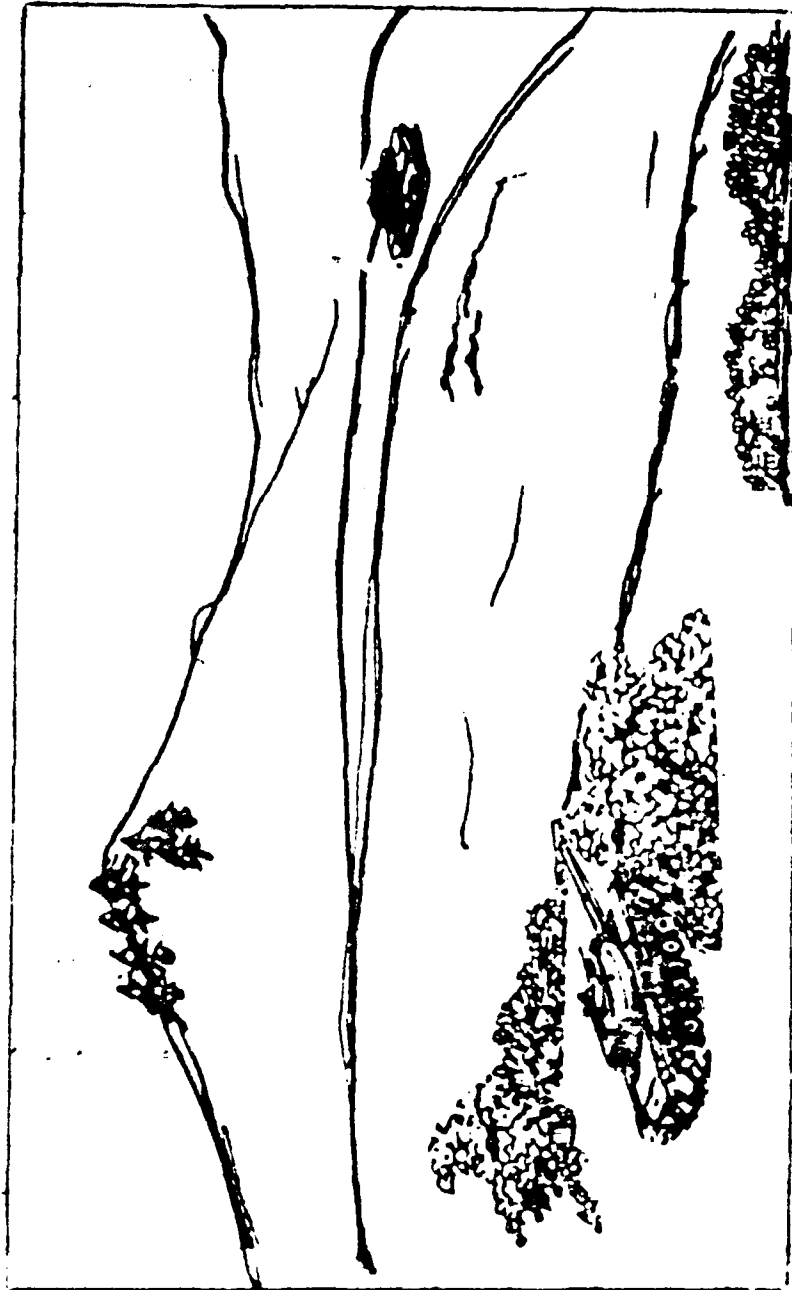
You must shoot NOW, and reload with the BEST round for your next shot.

The fire command tells the loader what kind of ammo to put in next, and for the Gunner to change his AMMUNITION SELECT switch.

WRONG ANSWERS

- A. If you announce this, the loader will reload the next round with HEAT.
- B. If you announce this, the loader will immediately unload the HEAT round, reload with SABOT, and announce SABOT UP. You'll lose a lot of time in getting off your first shot. This is NOT a good idea.
- D. Target is beyond battlesight range.
- E. Incorrect sequence of elements.

SCENARIO 8



THE SITUATION

- You are in a deliberate defense, turret down and well concealed.
- M60A3 is fully operational.
- Round loaded is HEAT.
- A T-72 appears at 2000 meters. It does not see you.

What is your fire command?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
GUNNER	GUNNER	GUNNER	LOADER LOAD
HEAT	SABOT	HEAT	SABOT, STOW HEAT
TANK . . .	TANK . . .	TANK	GUNNER
FIRE	FIRE	FIRE	SABOT
		FIRE SABOT	TANK . . .
			FIRE

SCENARIO 8 ANSWER

The correct answer is B: GUNNER

SABOT

TANK . . .

FIRE

In this situation, you are well concealed and the T-72 HAS NOT seen you.

You have enough time to unload the HEAT round and reload with SABOT, the BEST round for armor.

The way to reload is to announce SABOT in the AMMUNITION element.

The Loader will respond "SABOT UP", and the Gunner will change from HEAT to SABOT.

WRONG ANSWERS

- A. This is the 2d best round against armor.
- C. This is what you would do if you do not have time to reload.
- D. Technically correct, but not the standardized fire command recommended in FM 17-12-3.

SCENARIO 9



THE SITUATION

- You are moving in a traveling overwatch mode.
- M60A3 is fully operational.
- Round loaded is SABOT.
- You see a man pack SAGGER team off to your left at 750 meters.

What is your fire command?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
TC	LOADER	GUNNER	GUNNER
CAL 50	COAX	BEEHIVE	COAX
MISSILE . . .	MISSILE . . .	MISSILE . . .	MISSILE . . .
FIRE	FIRE	FIRE	FIRE

SCENARIO 9 ANSWER

The correct answer is D:
GUNNER
COAX
MISSILE . . .
FIRE

This fire command contains all the correct elements in the correct sequence. Whether or not an M60A3 tank should come to a halt to fire is the decision of the tank commander. Given this present situation, the tank crew should continue to move and engage the target with the coax machinegun.

WRONG ANSWERS

A. If you wanted to use the CAL 50, you WOULD NOT announce the fire command like that. It would be:

CAL 50

B. Careful! The loader CAN'T fire the COAX.

C. The loader would unload the SABOT round and reload with BEEHIVE. That probably isn't a good idea because an enemy tank might come along and you can't hurt him with BEEHIVE. Leave the SABOT in the tube and use the COAX to take care of the SAGGER team.

SCENARIO 10



THE SITUATION

- You are in a deliberate attack and have penetrated the enemy's forward defensive position.
- M60A3 is fully operational.
- Round loaded is SABOT.
- You see a BM-21 mounting 122 mm rocket launchers to your right at 1000 meters.

What is your fire command?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
GUNNER	GUNNER	GUNNER	CAL 50
SABOT	COAX	CAL 50	
TRUCK	TRUCK	TRUCK	
FIRE	FIRE	FIRE	
FIRE HEAT			

SCENARIO 10 ANSWER

The correct answer is D: CAL 50

Whenever the TC is going to engage a target with his weapon, the fire command is: CAL 50. Again, the preferred method of engagement is to fire on the move.

WRONG ANSWERS

- A. Not a bad choice, but save your main gun ammo and take him out with your CAL 50.
- B. No, the truck is at 1000 meters. That's a little too far for the 7.62 mm. Remember, the COAX has a maximum effective range of 900 meters.
- C. No way! The gunner can't fire the CAL 50.

The M60A3 Fire Command Booklets are
prototype training documents. For
comments or questions contact:

Mr. Ronald E. Kraemer
ARI Field Unit-Ft. Knox
ATTN: PERI-IK
Steele Hall
Fort Knox, KY 40121

Autovon: 464-4932
Commercial: (502) 624-4932